

## STRUCTURE OF REPORT



Name:

Class:

Title of experiment:

(E.g. The mealworm experiment - Adaptation)

Science vocabulary:

List here relevant science vocabulary that if used will demonstrate good use of science language

Aim/Research Question :

1. The focus of investigation/experiment.
2. Usually written as ' How does (independent variable)..... affect ..... (dependent variable) of ....?'
3. E.g. How does temperature of water affects the rate of evaporation?

Hypothesis:

1. prediction of experiment outcome
2. e.g. Increasing temperature of water will increase the rate of evaporation of water.
3. Note - don't use vague terms like affect. E.g. Increasing temperature of water will 'affect' the rate of evaporation

Scientific understanding:

1. Explains the basis or reasoning of your prediction.
2. E.g. Increasing temperature of water would increase the kinetic energy of water molecules (good science language demonstrated). Therefore ....

Independent variable:

1. What you change in an experiment and
2. How you are changing it)

Dependent variable:

1. What you measure in an experiment to investigate the aim of the experiment and
2. How you are measuring it
3. Note - not every measurement measured is dependent variable

Controlled variable:

1. what you do to the experiment to ensure the experiment is fair and accurate
2. how you are controlling the experiment. E.g. keeping the humidity/ temperature constant for all the experimental sample)

Materials/Apparatus:

The science tools and materials needed for your experiment to be successful.

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### Method:

1. A good method is one that others can follow in carrying out a scientific procedure; it is doable and repeatable.
2. A good method will collect sufficient data - at least 3 data points for grade 6 and at least 4 data points for grade 7 and 8.
3. Describe which steps to be repeated
4. Describe how many times the experiment will repeat for reliability of results, although in reality there may not be sufficient lab time to do this.

### Data collection:

1. Always collect your data in a table format. Include headings (mass of egg and units of measurement (g) in the table.
2. Provide a title for your table.
3. E.g. The table below shows....
4. Sometimes data is qualitative meaning it's observed, such as color. Observations should be tabulated as well.
5. E.g. Solution turned blue to colorless when ...
6. If you have a relevant picture, you may put it in as well but you should describe the relevance of the picture to the aim)

### Data processing:

1. Most of the time, data should be processed into relevant graph here.
2. Label x (horizontal) and y (vertical) axis, including units of measurement.
3. Title the graph. E.g. The graph below shows.....
4. When relevant, show your calculations that you use to process data, such as speed, density or acceleration.

### Conclusion:

1. Make a firm conclusion. E.g. Hypothesis made is supported/ validated, increasing temperature of water increased the rate of evaporation.
2. Describe the trend or pattern of your data that supports your conclusion.
3. Give detailed scientific explaining the result of your explanation. Most of the time, it's similar to the scientific explanation that supports your hypothesis but more detailed.

### Evaluation:

How can you improve on your experiment? How can the method be improved? How can the measurements be improved? How can you control the experiment better? Were there errors in the collected data? How would you conduct the experiment differently next time?